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ABSTRACT

Two hypotheses were tested in an experiment on the generalizability of McGuire's innoculation theory of attitude change: that subjects would be less influenced by counterpersuasion in a small group communication setting if an initial persuader employs a two-sided refutational message than if he employs a one-sided message; and that subjects will be less influenced by counterpersuasion in a small group setting if an initial persuader includes evidence in his message than if he does not. The independent variables in the study were message sidedness, evidence, counterpersuasion in a small group setting, and source credibility. The subjects, 518 college students enrolled in a basic communication course, were randomly assigned by class to the 16 experimental conditions, and then further randomly assigned within each class to three discussion groups. Each discussion group in the counterpersuasion condition was assigned a confederate to insure that counterpersuasion would be introduced in the small group setting. Pretest attitudinal questionnaires were administered, and both immediate and delayed posttest measures of attitude change were obtained after presentation of the persuasive message. Results of the study supported the first hypothesis, although for unclear reasons, and did not support the second hypothesis. (SH)

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Communication Research Center
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THE EFFECTS OF MESSAGE SIDEDNESS AND EVIDENCE ON INOCULATION AGAINST COUNTERPERSUASION IN SMALL GROUP COMMUNICATION

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ABSTRACT

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on Inoculation Against Counterpersuasion in Small Group Communication

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The purpose of this study was to test the generalizability of previous research concerning inoculation against counterpersuasion when the counterpersuasive influence is exerted in a small group communication context. Earlier findings have indicated that use of a two-sided message which includes refutation of opposing positions or including documented supporting material tends to inoculate receivers against counterpersuasion in a confrontation setting. It was hypothesized that similar effects would be obtained when counterpersuasion was introduced by confederates in a small group communication setting.

Results of the study indicated that use of a two-sided message resulted in more attitude change after counterpersuasion than did use of a one-sided message and that the effect remained for at least three weeks. Effects for evidence were significant at only the .10 level, but in the hypothesized direction. Message sidedness had no significant effect on perceived source credibility. Inclusion of evidence significantly increased perceived source credibility on the authoritativeness dimension.

The Effects of Message Sidedness and Evidence on Inoculation Against Counterpersuasion in Small Group Communication

by

James C. McCroskey, Thomas J. Young, and Michael D. Scott

The major thrust of persuasion and attitude change research over the past three decades has been in the area of immediate effects of source, message, and receiver variables. Few researchers have indicated a concern with or have tested for the effects of these variables over time. As a result, we are open to the charge that we are developing a "theory of immediate effects." The development of such a theory is not necessarily bad in itself, in some cases immediate effects are the only important effects. But, more commonly, sustained effects are desired.

The research reported and theory generated by McGuire and his associates has been the most significant work in the area of sustained effect.[1] This research has demonstrated that refutation of arguments that are the same or similar to arguments to which a receiver will be exposed later will reduce the impact of the counterpersuasion of the second communicator.[2] When an initial communicator, therefore, introduces and refutes arguments which a later communicator will use, the first communicator "inoculates" his receivers against subsequent persuasion. It has been charged (by McGuire himself as well as others) that McGuire's research cannot be generalized to the real world.[3] The rationale behind this charge is that the topics used in the McGuire investigations were always "cultural truisms." These topics were employed so that, in McGuire's words, a "germ-free environment" could be created. Since the theory upon which this research was based was a medical analogy, inoculation, such a germ-free environment was presumed to be necessary.[4] McGuire correctly notes that discussing cultural truisms in a germ-free environment is not typical of persuasion in the real world. While this attack on inoculation theory appears valid if we look only at the research reported by McGuire and his associates, the validity of the charge evaporates if we consider related research that has appeared under the heading of "message-sidedness."[5] Lumsdaine and Janis reported a study several years prior to the earliest work of McGuire which closely paralleled the McGuire approach but did not use as the topic a cultural truism.[6] They found that providing individuals with knowledge of possible arguments prior to a message containing those counterarguments was more effective than only providing support for an issue and providing no knowledge of possible counterarguments. Lumsdaine and Janis referred to their message which included possible counterarguments as a "two-sided" message and their message not including counterarguments as a "one-sided" message. In a more recent and unusually well-controlled study, Koehler has also observed the superiority of the two-sided approach for an initial communicator in a confrontation setting.[7] In the Koehler study, the topic was a social issue rather than a cultural truism and the "two-sided" message was exactly equivalent to McGuire's "refutational-same" condition.

Considering these various studies together, we may conclude that in a confrontation setting, one in which an initial communicator presents a message and at some later time a counterpersuasder presents a conflicting message, an initial

communicator that employs a two-sided message that refutes potential counter-arguments will provide resistence in his receivers to subsequent counterpersuasion.

A second area of research that has considered sustained impact on attitude change is the area of evidence usage. In a series of studies reported by McCroskey, it was observed consistently that including evidence in a persuasive message increased the amount of attitude change sustained over a period of three to seven weeks.[8] In none of these studies, however, was there any attempt either to control or manipulate the subjects' exposure to counterpersuasive attempts. In a more recent study, McCroskey provided a direct test of the hypothesis that subjects will be less effected by counterpersuasion from a second speaker if the first speaker's message contains evidence than they will be if the first speaker's message does not contain evidence. The results of that study provided strong support for the hypothesis.[9]

While both of these areas of research point to the development of a resistence to counterpersuasion, such resistence has only been tested when the counter-persuasive influence was a formal speech or essay. In short, resistence has been found to be generated by two-sided message and messages including evidence only in a one-to-many context. No test of either variable in an interpersonal context, such as a small group discussion, has been reported. The present study, therefore, was designed to test the generalizability of the previous results to the small group, interpersonal setting. The need for the present study becomes apparent when we consider that interpersonal or small group communication almost always occurs after a person is exposed to a speech or essay that attacks previously held beliefs or attitudes. Such attacks normally create dissonance in the mind of receivers, and as Festinger has noted,[10] people will often seek further information through communicating with their peers or others in order to resolve their dissonance.

Hypotheses

The hypotheses tested in the present investigation were as follows:

1) Subjects will be less influenced by counterpersuasion in a small group communication setting if an initial persuader employs a two-sided, refutational message than if he employs a one-sided message.
2) Subjects will be less influenced by counterpersuasion in a small group setting if an initial persuader includes evidence in his message than if he does not.

Although several independent variables were considered in the present study, no *a priori* interaction hypotheses were tested.

Method

The three primary independent variables in this study were message sidedness (a one-sided message or a two-sided, refutational message), evidence (included or not included), and counterpersuasion in a small group communication setting (present or absent). Because source credibility has been found to interact with message variables in a number of studies,[11] source credibility (highly credible or less credible) was introduced into the design as a control variable. Thus, the design of the study included four independent variables, each with two levels.

The topic chosen for the experimental messages was "local control of education." The following procedure was employed in the development of the experimental

messages. The "two-sided, refutational message with evidence" was created first. All major points in the message were supported with documented material, including the refutation of the counterarguments which were included. The "One-sided message with evidence" was created by omitting references to counterarguments and refutation of those counterarguments. The "no evidence" conditions were created by omitting all citations of sources from the evidence versions and generalizing factual data (i.e. "56%" became "a majority").

The subjects were 518 college students enrolled in a basic communication course at Illinois State University during the fall semester, 1970. Subjects were available only in 32 intact classes. The 32 classes were randomly assigned to the 16 experimental conditions, two sections to a condition. Subjects were further randomly assigned within each class to three discussion groups. Each of the discussion groups contained five to seven subjects, depending upon class size. Each discussion group in the counterpersuasion condition was randomly assigned one of three confederates.[12] The three confederates were graduate assistants in the Department of Communication at Illinois State University. All three had extensive experience at the undergraduate level in academic debate. They were charged with the responsibility of insuring that counterpersuasion was introduced extensively in the small group discussions. A short training period for the confederates included presenting them with speeches which took a contrary position to that of the experimental message. In addition, the confederates were encouraged to develop additional arguments of their own. All of the confederates had been graduated from undergraduate school during the previous spring or summer. Consequently, it was easy for them to be accepted in the experimental classes as regular students in the course. This was facilitated by conducting the experiment during the second class session, before the subjects were able to become familiar with who was or was not enrolled in the class.

Subjects were not informed of the experimental nature of the project. Rather they were led to believe that it was a regular course assignment. During the first class session, a twenty item Likert-type instrument was administered for the alleged purpose of "determining an appropriate topic for our first small group discussion assignment." The instrument included seven-step response scales for twenty topics, one of which was the experimental topic. This measure provided a pre-test of attitude on the topic. Attitude toward the topic after exposure to the appropriate experimental condition was measured by six semantic differential-type scales selected from a previous factor analysis and found to be reliable on the topic.[13] A delayed post-test of attitude was obtained on the same six scales three weeks after the experiment. The scales for the delayed post-test measurement were included with scales for six other topics. The alleged reason for the delayed post-test was to "get a better measure of how students feel about these topics" so that "next term we will be able to determine what topics we should use for discussion in advance."

Source credibility was measured on the authoritativeness and character dimensions at the time of the immediate post-test.[14] In addition, subjects were asked to complete the following scales presented in the semantic differential-type format to determine their perception of the message: clear-confused, well supported-poorly supported, biased-objective, good delivery-poor delivery, one sided-two sided.

Except for the pre-test and delayed post-test measures of attitude, each experimental condition was administered during a single class period. Students

had been informed previously that they would be engaged in a small group communication project during the class period. They were informed that the instructor believed that the discussion would be facilitated by presenting a speech on the topic prior to the discussion. This speech was supposed to serve as a "starting point for the discussion." After this orientation, the class instructor played the appropriate tape-recorded message. Included at the beginning of the tape was an introduction of the alleged source which served as the credibility manipulation.

Subjects who were in the eight conditions that were not to receive counterpersuasion were asked to complete the post-test instruments immediately following the tape-recorded message. The alleged reason for completion of the instruments was so that "we can get your reaction to this speech to see whether or not we want to use it in future classes." Subjects in the counterpersuasion conditions did not complete the instrument at that time. Rather, they were assigned to their discussion groups and participated in a discussion of from twenty to twenty-five minutes in length. At the end of that time, the instructor distributed the post-test packets to the subjects under the same cover as was employed for the subjects in the no counterpersuasion conditions.

Analysis of the pre-test attitude data indicated no significant differences among the various experimental conditions. Consequently, the attitude, credibility, and message perception data were subjected to four-classification analyses of variance. When significant interactions were obtained, t-tests were employed to facilitate interpretation of the results. The .05 level was set for significance on all tests. In each analysis of variance the data units were mean scores across discussion groups. Consequently, there was an n of six in each condition. Since there was an unequal number of subjects in discussion groups, this procedure was deemed preferable to using as the unit of analysis each individual'subject s response because the procedure selected avoided allowing any single discussion group to influence disproportionately the mean of any experimental condition.

Results

The results of the analysis of variance of the immediate post-test attitude measure indicated two significant effects: message sidedness ($F=5.29$) and counterpersuasion ($F=22.17$). Since the experimental messages argued against local control of education, a lower score indicates greater attitude change having been produced by a given experimental condition. The two-sided message condition produced significantly more attitude change ($\bar{X}=23.63$) than the one-sided message ($\bar{X}=25.71$). As was expected, subjects who were exposed to counterpersuasion were less inclined to agree with the position of the experimental message ($\bar{X}=26.80$) than were subjects who were not exposed to counterpersuasion ($\bar{X}=22.55$).

Since there was no significant interaction between message-sidedness and counterpersuasion ($F=2.32$), it would appear that these results indicate that in this investigation the two-sided message produced more attitude change than did the one-sided message immediately, and that counterpersuasion did not alter that superiority of the two-sided message. However, an examination of the raw means representing the sidedness by counterpersuasion interaction indicates that, although it was not significant, there was a tendency for the two-sided message to have a stronger effect compared to the one-sided message in the counterpersuasion condition than in the no counterpersuasion condition ($\bar{D}=2.39$ to $\bar{D}=1.87$).

The effects for the other two independent variables were not significant. The mean score for subjects exposed to the evidence messages was 24.34 while those exposed to the no evidence messages scored 25.00. Subjects in the supposedly highly credible source condition scored 24.05 while those in what was presumed to be the less credible condition scored 25.29. This absence of an effect for source credibility, of course, suggests strong conflict with much previous research which has indicated the impact of a highly credible source in persuasive communication. However, as we will note below, the reason for this lack of significant difference is that the credibility inductions apparently were not perceived as intended. Both sources were perceived as highly credible.

Analysis of the post-test minus delayed post-test attitude change scores yielded only one significant F-ratio, that for the counterpersuasion condition. While those subjects exposed to counterpersuasion shifted a negligible-.29, those who had not been systematically exposed to counterpersuasion shifted -4.06. Since the subjects who were in the no counterpersuasion condition engaged in small group discussion after having completed the immediate post-test measure, this shift observed three weeks later may have actually occurred as a result of those discussions. While no counterpersuasion was systematically introduced into those discussions by the experimenter , it is reasonable to assume that some counterpersuasive efforts were exerted spontaneously. Another interpretation of these results could be that over the three week period all attitude change that had been initially produced was lost through regression and forgetting of the communication event. Since the pre-test in this study was on a different scale than the post-test and the delayed post-test, however, it is impossible to determine whether or not attitudes of the total group involved in the experiment were more positive toward the message after the four-week period than they were initially.

The absence of a significant effect in this analysis for message-sidedness suggests that the superiority of the two-sided message which was obtained in the immediate post-test was retained over the three-week delay period. This result is consistent with earlier investigations. The effect of the evidence variable over time has to be considered nonsignificant since the F-ratio (F=3.19) did not achieve the pre-established significance criterion, however,there was a marked tendency in favor of the inclusion of evidence. Over the three week period, the subjects who had been exposed to the evidence messages shifted 1.29 while the subjects who had not been exposed to evidence shifted -1.13.

Analyses of the data relating to source credibility resulted in several significantly F-ratios. Introduction of counterpersuasion was found to significantly affect both authoritativeness (F=32.11) and character (F=5.12). The introduction of counterpersuasion tended to reduce perceived credbility on both dimensions. Subjects in the no counterpersuasion conditions perceived the source to be more authoritative ($\bar{X}$=34.45) than did the subjects in the counterpersuasion condition ($\bar{X}$=31.35). Similarly, subjects in the no counterpersuasion condition perceived the source to be of higher character ($\bar{X}$=28.62) than did the subjects in the counterpersuasion condition ($\bar{X}$=27.67). These differences can most likely be attributed to the fact that both the confederates and some of the subjects attacked the experimental source as presenting inaccurate or untrue information.

Message-sidedness was found to have no significant affect on either authoritativeness (F=0.01) or character (F=0.03). Inclusion of evidence in the message was found to significantly affect perceived authoritativeness (F=9.63). Subjects exposed to the evidence conditions perceived the source as more credible ($\bar{X}$=33.75) than the subjects exposed to the messages not including evidence ($\bar{X}$=32.05). No significant effect for evidence was observed on the character dimension (F=1.00).

Significant differences which could be attributed to the initial credibility induction were observed on both the authoritativeness (F=55.79) and character (F=8.40) dimensions. Subjects exposed to the allegedly highly credible source perceived the source to be both more authoritative ($\bar{X}$=34.94) and of higher character ($\bar{X}$=28.75) than did the subjects exposed to the induction designed to generate low credibility ($\bar{X}$=30.85 for authoritativeness and $\bar{X}$=27.53 for character). A significant initial credibility by counterpersuasion interaction was also observed on both the authoritativeness (F=4.79) and character (F=4.69) dimensions. An examination of the means represented in this interaction (See Table 1) indicated that the primary cause of the significant interaction on both dimensions was the derogation of the allegedly less credible source in the counterpersuasion condition.

While significant differences were observed that could be attributed to the initial credibility inductions, and significant interactions between the credibility inductions and the counterpersuasion variable were observed, an examination of the raw means indicated that the inductions were probably less successful than desired. The potential range of scores for both dimensions of credibility was from 6 (maximum low credibility) to 42 (maximum high credbility), with the presumed mid-point on the scale being 24. Both sources were perceived across all conditions as above the mid-point on both dimensions. Since there was no pre-test of the credibility perceived from these inductions on the subjects involved in this experiment and there was no control group employed (the inductions had been pre-tested in a previous experiment and found to be successful[15]), it cannot be ascertained how the experimental subjects in this experiment initially perceived the communication source. It is possible that the inductions were perceived as intended originally but the message employed, even in the presumably less potent versions, was strong enough to increase credibility to the point where both the highly credible and less credible sources were perceived at the end of the message as moderate to highly credible. Such an effect has been found with rhetorically strong messages in previous research. It is equally likely, however, that the conditions of the present experiment militated against a perception of low credibility for any source. Since the project was administered under the cover of a class assigmnent and the instructor had presumably selected the speech to be presented, the liklihood of sponsorship contamination was high. Such a sponsorship has been observed to contaminate communication research in the past.[16]

Whatever the explanation for this effect might be, it is important to note its implications for the interpretation of the present results. Although credibility may not have been manipulated successfully in the study, results of the analyses indicate that it was sufficiently controlled in that no unusual or uninterpretable interaction effects were obtained. Nevertheless, the results of this study should only be generalized to cases in which a message source is moderately to highly credible. Effects with a source who has low credibility could be quite different.

Analyses of the data obtained on the message perception scales resulted in several significant differences, most of which were attributible to the counterpersuasion condition. What might be referred to as "negative halo effect" appeared to be present in the counterpersuasion condition. Subjects in the counterpersuasion condition perceived the message to be less clear (F=18.02), less well supported (F=37.96), more biased (F=12.51), less well delivered (F=4.28), and more one-sided (F=11.07). The evidence message was perceived to be more clear (F=8.41) and better supported (F=18.41) than the no evidence message. The two-sided message was perceived as being more two-sided (F=24.64) than the one-sided message. These results suggest that the evidence and sidedness manipulations were perceived as intended.

Discussion

The results of the present study lend support for the first hypothesis set forth in this investigation. Subjects were less influenced by counterpersuasion in a small group communication setting when the initial persuader employed a two-sided, refutational message than when he employed a one-sided message. While the results support the hypothesis, the results also provide a confusing picture as to the reason why the hypothesis was supported. Since on the immediate post-test attitude measure both the subjects exposed to counterpersuasion and those not exposed to counterpersuasion were more influenced by the two-sided than the one-sided message, and there was no significant interaction between message-sidedness and counterpersuasion, explaining these results in terms of inocultion theory seems inappropriate. A more parsimonious explanation would seem to be that the two-sided message produced more change initially and thus there was more change left after counterpersuasion. It should be noted that in the majority of previous investigations a two-sided message has not been found to be more effective immediately than a one-sided message, however, in some cases results similar to those in the present investigation have been found. Since the superiority of the two-sided message over the one-sided message was sustained over the three week delay period, however, it is clear that message-sidedness is a potent variable in the production of sustained attitude change, even if inoculation theory cannot be used as a satisfactory explanation for the observed result.

Support for the second hypothesis of this investigation did not meet the pre-established significance criterion (.05). The results were in the predicted direction, and the differences would be considered significant if the .10 criterion were employed. Nevertheless, on the basis of the present study the hypothesis that subjects will be less influenced by counterpersuasion in a small group communication setting if an initial persuader includes evidence in his message than if he does not must be rejected. This is not to say that the hypothesis is definitely incorrect. Rather, it is only to say that no statistically significant support for that hypothesis was obtained in the current investigation.

On the basis of the results of the current study, we may conclude that the results of the previous investigations on message-sidedness may be generalized to counterpersuasion in a small group communication setting. The use of a two-sided, refutational message will result in more sustained attitude change in the face of counterpersuasion in a small group setting than will the use of a one-sided message. It would appear from these results, however, that we may not confidently generalize the results of earlier research on the effects of evidence to counterpersuasion in a small group setting. While including evidence in an initial message has been found in previous investigations to increase sustained attitude change when the receiver is confronted by a subsequent counterpersuasive influence in the form of a speech or essay, inclusion of evidence by an initial communicator when his receivers will be confronted by counterpersuasion in a small group communication setting may have less value or no value at all.

While the current investigation was restricted to only two message variables, use of evidence and message-sidedness, the results of the study have implications for other message variables as well. Although previous research had indicated that both inclusion of evidence and use of a two-sided, refutational message enhanced sustained attitude change in the face of counterpersuasion, the present investigation called into question the generalizability of one of these variables, inclusion of evidence, in the small group communication setting. It is impossible to estimate precisely what percentage of counterpersuasion occurs in this type of

setting. However, it seems reasonable to assume that an overwhelming majority does. If further research fails to demonstrate an affect for evidence in this context, it would appear that evidence may be an inconsequential message variable. If so, additional research on this variable would be a waste of valuable research effort. A number of other message variables have been observed to have immediate effects in persuasion, such as fear appeals, opinionated language, language intensity, and message organization. Until such variables are tested for sustained effect on attitude change, and particularly in the face of counterpersuasion in a small group setting, we cannot know whether these variables have any meaningful impact in persuasion and are thus worthy of our pedagogical and research efforts. Research designed to answer these questions should receive high priority consideration.

TABLE I

POST-TEST CREDIBILITY MEANS*

	Counterpersuasion		No Counterpersuasion	
	Highly Credible	Less Credible	Highly Credible	Less Credible
Authoritativeness	33.99ac	28.71ab	35.89abc	33.00bc
Character	28.73d	26.60def	28.77e	28.46f

*Means with same subscript differ significantly at the .05 level, two-tailed test. The higher the mean, the higher the perceived credibility.

Footnotes

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1. W.J. McGuire, "Immunization Against Persuasion," in L. Berkowitz (Ed.), Advances in Experimental Social Psychology, Vol. I, (New York: Academic Press, 1964), 191-229.

2. See, for example, W.J. McGuire, "The Effectiveness of Supportive and Refutational Defenses in Immunizing and Restoring Beliefs Against Persuasion," Sociometry, XXIV (1961), 184-197.

3. See, for example, C.A. Insko, Theories of Attitude Change (New York: Appleton, Century, Crofts, 1967).

4. McGuire, "Immunization Against Persuasion..."

5. See, for example, A.A. Lumsdaine and I.L. Janis, "Resistance to 'Counter-Propaganda' Produced by a One-Sided and Two-Sided Propaganda Presentation," Public Opinion Quarterly, XVII (1953), 311-318, and J. Koehler, "Effects on Audience Opinion of One-Sided and Two-Sided Speeches Supporting and Opposing a Proposition, Examining Opinions on Speakers Ethos, the Topic, and the Open-Mindedness of Listeners," (unpubl. Ph.D. dissertation, Pennsylvania State University, 1968).

6. Lumsdaine and Janis.

7. Koehler.

8. J.C. McCroskey, "A Summary of Experimental Research on the Effects of Evidence in Persuasive Communication," Quarterly Journal of Speech LV (1969), 169-176.

9. J.C. McCroskey, "The Effects of Evidence as an Inhibitor of Counter-Persuasion," Speech Monographs, XXXVII (1970), 188-194.

10. L. Festinger, A Theory of Cognitive Dissonance (New York: Row, Peterson, 1957).

11. See, for example, McCroskey, "A Summary of Experimental. . ." and G.R. Miller and M.A. Hewgill, "Some Recent Research on Fear-Arousing Message Appeals," Speech Monographs, XXIII (1966), 377-391.

12. We wish to express our appreciation to Buford Crites, Gary Gipson, and Robert McMurry for their cooperation in this project.

13. J.C. McCroskey, "Experimental Studies of the Effects of Ethos and Evidence in Persuasive Communication," (unpubl. D. Ed. dissertation, Pennsylvania State University, 1966).

14. J.C. McCroskey, "Scales for the Measurement of Ethos," Speech Monographs, XXXIII (1966), 65-72.

15. McCroskey, "The Effects of Evidence as an Inhibitor . . ."

16. See, for example, J.C. McCroskey and R.E. Dunham, "Ethos: A Confounding Element in Communication Research," Speech Monographs, XXXIII (1966), 456-463 and P.D. Holtzman, "Confirmation of Ethos as a Confounding Element in Communication Research," Speech Monographs, XXXIII (1966), 464-466.